Syllabus - Phonetics
Linguistics 431/531
Lecture: T/Th 12:30 - 1:50
250 Park Hall

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Course description
Linguistics 431/531 is an introduction to phonetics. This includes broad coverage in articulatory phonetics, speech acoustics, speech aerodynamics, speech perception, and phonetic transcription. Particular topics covered include place and manner of articulation, airstream mechanisms, the aerodynamic myoelastic theory of vocal fold vibration, source-filter theory, the relation between airflow and turbulence, resonance and anti-resonance, speech suprasegmentals, hearing mechanisms, perceptual distance and scales, phonological features, and allophony.

Texts (required):
Peter Ladefoged & Keith Johnson. (2010). A Course in Phonetics. 6th ed. Boston: Wadsworth, Cengage Learning.
(You may also purchase the 5th or 7th editions. They are all very similar.)
Johnson, Keith. 2012. Acoustic and Auditory Phonetics. 3rd ed. Cambridge: Blackwell Publishers (**Note: The library has an electronic version that you can view in your browser without restriction or "check out" as well**.)

There are additional required readings that will be made available on UBlearns.

Course goals
The aim of this course is to provide the student with practical skills, training, and knowledge in phonetics. Students will learn how to produce, recognize, and transcribe speech sounds from the world's languages. The course will train students in the physical and anatomical mechanisms for producing speech, the acoustic characteristics of the speech signal, and the accepted international phonetic alphabet (IPA) used for speech sounds in the world's languages. In addition, the course includes a focus on experimental and field methods in phonetic research, which will culminate in student research projects using such methods. Students will obtain an overview of phonetic representations and models, speech perception, and prosody. Practical training and a focus on methods will provide a background for further courses in linguistics, communication disorders and sciences, speech recognition and processing, and psychology. Specific training in the IPA, distinctive features, and prosody will provide a background for courses in phonological theory.

Course requirements
Eight weekly homework assignments (5% each): 40%
Two exams (midterm and final, 10% each): 20%
Five in-class listening quizzes (2% each): 10%
Final project: 20%
Practical production test (scheduled during the last week of semester): 5%
Class participation: 5%

Recommendation:
While it is not required, do the performance exercises in Ladefoged & Johnson! These are excellent practice for training yourself to produce different speech sounds and for hearing them as well. They also prepare you well for transcription (which you'll do in the homework assignments), your production test, and the in-class listening exercises.

As your learning outcomes, you will be able to:	**Assessment**
1. Transcribe speech sounds from a variety of languages using the international phonetic alphabet.	HW1-2, listening exercises, midterm, final project, final exam
2. Apply and recognize the principle of allophony.	HW2, HW3, midterm, final exam, final project
3. Organize speech sounds in terms of their physical and cognitive bases and identify such organization.	HW1-3, 7-8, midterm, final exam
4. Identify the principles of speech aerodynamics.	HW4, midterm, final exam
5. Recognize acoustic dimensions related to speech and how speech articulations produce certain acoustic profiles.	HW5, 6, 8, midterm, final exam
6. Articulate the prosodic and suprasegmental aspects of the speech signal, how they are produced and their acoustics.	HW7, final exam, final project
7. Explain how the human ear and brain perceive speech sounds.	HW8, final exam
8. Demonstrate the relationship between phonetics and phonology.	HW2, HW7, final exam, final project
9. Accurately produce speech sounds found in the world's languages.	production test

Details regarding course requirements:

Readings

Please read the assigned chapters/articles by the week given in the schedule. Make a note of any questions. If the questions are not answered in the lecture, ask. Then go back and review the reading to see if your question or confusion has been clarified.

Homework assignments

There are eight assignments throughout the 15 weeks of the semester, so there is an assignment almost every week. The purpose of these is to provide you with practice doing phonetics and to reinforce the course material. These assignments are handed out on Thursdays and will be due the following Thursday, at the beginning of class. All assignments should generally be typed, but it is acceptable to write IPA characters manually if needed.

One late assignment is allowed without a penalty, but this should be turned in within two days. All other late assignments require prior approval. Otherwise, a 10% per day penalty (starting right after class) will be applied to late assignments. **Please turn in a hard copy of the assignment to the instructor at the beginning of the class.**

Exams
The exams are cumulative, though you will be asked more on the final exam pertaining to the material from later in the course than earlier. The nature of phonetics is such that many concepts build on each other. The mid-term is on 10/29/15 (in-class) and the final is on 12/17/15 (in the same room as our class).

Listening quizzes
Listening exercises involve listening and transcribing a live, native speaker producing words illustrating a phonetic contrast and will be completed in class throughout the semester. Since this is a live quiz with a speaker, you must be present in class to participate.

Final project
The final project consists of a phonetic description of a language with which you are not familiar, accompanied by recordings of the speaker to document your description.

A 10% per day penalty (starting right after class) will be applied to late final projects. The final project is due **Thursday, December 10th (the final class) at the beginning of the class.**

Practical production test
Phonetics involves not just the ability to perceive different speech sounds, but to produce them as well. During the last week of class, you will participate in a 5-10 minute oral test where you produce different speech sounds.

Participation
Participation is *especially* important in phonetics. Class involves hearing, transcribing, and discussing speech sounds and live involvement in these activities is crucial to understanding the material.

Collaboration Policy
You are encouraged to discuss this class and your work with other students but all written assignments are to be done alone. I encourage you to discuss topics with fellow students, as this course involves many technical concepts and relies heavily on different methods. *Under no circumstances* may any transcription exercises be discussed or completed with other students. Apart from the expectations listed explicitly above, all students will uphold UB's policies on academic honesty, listed at http://undergrad-catalog.buffalo.edu/policies/course/integrity.shtml.

Grading policy
Homework assignments will typically require undergraduates to complete 2/3 or 3/4 sections for full credit. Graduate students will be required to complete all sections on homework assignments. In addition, undergraduate students will be able to take advantage of extra credit problems on tests to supplement their grades. These will be required problems for graduate students.

Class schedule (subject to change)

Week	Topic	Readings
1: 9/1 - 9/3	Introduction to Phonetics, the IPA, and vocal tract anatomy	Ladefoged & Johnson, Chapters 1-2
2: 9/8 - 9/10	Transcription and English phonetics *Assignment 1 due 9/10*	Ladefoged & Johnson, Chapters 3-4
3: 9/15 - 9/17	Place of articulation *Assignment 2 due 9/17*	Ladefoged & Johnson, Chapter 7
4: 9/22 - 9/24	Manner of articulation, aerodynamics *Listening exercise 1 - 9/24*	Ladefoged & Johnson, Ch.5 p.107-116 (p.115 - 124 in 7th ed.)
5: 9/29 - 10/1	Airstream mechanisms, voicing, & VOT	Ladefoged & Johnson, Chapter 6, Ohala (2002)
6: 10/6 - 10/8	Introduction to acoustics, the source-filter theory of speech production *Assignment 3 due 10/5*	Johnson, Chapters 1-2;
7: 10/13 - 10/15	Vowel acoustics *Assignment 4 due 10/13* *Listening exercise 2 - 10/15*	Johnson, Chapter 6
8: 10/20 - 10/22	Speech acoustics; spectrogram reading *Assignment 5 due 10/22*	Ladefoged & Johnson, Chapters 8-9
9: 10/27 - 10/29	**Midterm on 10/29**	
10: 11/3 - 11/5	Stop/Fricative acoustics *Assignment 6 due 11/5*	Johnson, Chapters 7-8
11: 11/10 - 11/12	Nasal/Lateral acoustics; phonetic fieldwork *Listening exercise 3 - 11/12*	Johnson, Chapter 9 Maddieson (2001)
12: 11/17 - 11/19	Tone and phonation type	Gordon & Ladefoged 2001; Ladefoged & Johnson, Chapter 10
13: 11/24 (No class on 11/26; Thanksgiving break)	Prosody and suprasegmentals *Assignment 7 due 11/24* *Listening exercise 4 - 11/24*	Ladefoged & Johnson, Chapter 5; p.116-130 (p. 124 - 142 in 7th ed.)
14: 12/1 - 12/3	Hearing *Assignment 8 due 12/3* *Listening exercise 5 - 12/3*	Johnson, Chapter 4
15: 12/8 - 12/10	Speech perception, phonetics and phonological features ***Final projects due 12/10;*** ***Production test this week***	Johnson, Chapter 5 Ladefoged & Johnson, Chapter 11
16: Thursday, 12/17	**Final exam (cumulative)** **11:45 AM - 2:45 PM in 250 Park Hall**	